User Manual
Version 3

Thank you for choosing Chart-me XLS. With Chart-me XLS you make Microsoft Excel your professional tool for business charts. In this user manual you find a detailed guideline to the numerous features of Chart-me XLS.

For more information, visit our website at http://support.hi-chart.com

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Installation

Chart-me XLS will be installed on your computer through a setup assistant program (installer). The installer program is part of the delivered zip archive and consists of two files:

Figure: Zip-archive with Chart-me XLS installer files
Start the setup process by double-clicking the setup.exe file and follow the dialog boxes.

Figure: Installation dialog box of Chart-me XLS

Figure: Confirm installation folder for Chart-me XLS
Figure: License agreement of Chart-me XLS

Figure: Start of Chart-me XLS setup program

Figure: Chart-me XLS is being installed
In the last step of the setup process, the activation window appears. Put in your name and activation code here, as stated on your license documents or in the e-mail from our web shop.

**Chart-me XLS with Tables module**

Depending on the Chart-me XLS version you purchased, you get different activation codes. When acquiring Chart-me XLS with the Tables module, the following message appears on your screen.

![Chart-me activation window](image)

**Figure:** Installation of *Chart-me XLS* is finished; enter the activation code (copy&paste) for the licensed Tables module

If you want to use the free 30-day trial period, click on the Demo button. This will activate the demo version. The remaining trial-days are displayed in the lower part of the window. Then click OK.

![Chart-me activation window](image)

**Figure:** Start demo mode (trial period)

![Chart-me activation window](image)

**Figure:** Demo mode has been activated for 30 days

Once the trial period has finished, *Chart-me XLS* stops working until you purchase a license and enter a valid activation code.

Upon successful installation, the following entries will appear in your Windows Start-menu in the folder `HI-CHART\chart-me`. 
Figure: Contents of the menu folder Start/Programs/HI-CHART/chart-me

**Chart-me XLS Activation** will open the activation window.

**Chart-me XLS Brief Manual** will open this document.

**Chart-me XLS Performance Guide** will open a guideline to optimize performance while working with Chart-me XLS.

**License agreement** *Chart-me XLS* will open the license agreement that has previously been shown during the installation process.
Create page layouts and charts

Starting Chart-me XLS

Upon successful installation of Chart-me XLS, start your MS Excel (2007 or 2010) as usual. There will be a Chart-me menu item on your MS Excel menu bar.

Figure: Chart-me menu ribbon

Create page layout

Start your Chart-me XLS project by first selecting a page layout:

Figure: page layout

Choose between five different page formats: Screen = PowerPoint (4:3, 16:9 or individual dimensions), A4 landscape or portrait, A3 landscape or portrait.

Figure: PowerPoint page grid options

Each page layout then provides various chart templates from which to choose:

Figure: Grid options for paper formats

Every print and on-screen layout option provides various predefined page grid definitions. Choose from 4 basic types featuring a single chart with differing margins or one of the multi chart grid
definitions: 2x2, 3x3, 4x4 grids featuring 4, 9, and 16 charts (or other content) per page respectively. There is also a tree structure option composed of 6 charts.

Upon selection of the page grid, choose the number of lines for message and title display from the dialog window. Select whether to insert the new worksheet into the existing workbook or create a new workbook.

Depending on the selected page template – Screen or Paper – the page dimensions can be individually adjusted.

![Page layout parameters](image)

**Figure:** Page parameters for page type Screen

Selecting the page type Screen produces a template with fixed page size precisely fitting onto a PowerPoint slide with the same setting. You can choose from predefined PowerPoint page sizes or define your own.

![Page layout parameters](image)

**Figure:** PowerPoint page sizes

The page type Paper generates a layout that will print on a single sheet of paper, without page break.
The new page layout can be inserted into a new workbook or as a worksheet in the current workbook.

Once a page layout has been created, it can be easily adjusted at any time:

Figure: Change page layout settings
In the following window, the page type can be switched between Screen and Paper.

Figure: Edit layout – page type Screen

When switching the page type to Paper, the page margins can be defined.

Figure: Edit layout – page type Paper

For printed output we recommend to adjust the printer options in Excel corresponding to the settings you chose here in Chart-me XLS.
If you make any changes to the page size definition or modify any column width or row height in the page layout sheet, the page grid has to be recalculated.

This function adjusts the layout width and height, depending on the page type:

- **Page type Paper**
  The size of all cells is proportionally adjusted to a point just before a page break would appear. (maximum possible size without page break)

- **Page type Screen**
  The size of all cells is proportionally adjusted so that it meets the overall dimension in cm. (layout fits precisely on a PPT slide)

If the DPI-resolution\(^1\) of the screen changes (this setting may differ from one computer to another), the page grid has to be recalculated. Charts that have already been placed inside the layout will be adjusted to the correct new page dimensions automatically.

Every *Chart-me XLS* generated page grid states its DPI-resolution in the top right range of the sheet.

If *Chart-me XLS* detects that the DPI-resolution has changed but the page layout has not yet been recalculated, the DPI-display turns red.

\(^1\) The DPI-resolution can be changed in Windows 7 *Control Panel – Display – User defined text size (DPI)*. DPI (or PPI) means: pixels per inch. This is a factor used by input and output devices to translate pixel dimensions into inches or centimeters.
**Figure:** Red DPI-display means: page grid has to be recalculated
Recalculate/Refresh the page grid by clicking the recalculate icon: 🔄

**Insert main chart**

There are 3 chart types from which to choose: Horizontal, Vertical, XY:

- Enter chart size as pixel values
- Highlight a cell range in the worksheet or
- Select one of the pre-defined cell range ranges by clicking on one of the blocks in the lower half of the dialog window
The **Select cell range** option allows you to insert the chart in one of the predefined ranges. Only a single chart can be inserted at a time. By holding the STRG key, you may select multiple predefined cell ranges simultaneously, increasing the size of the single chart to be inserted. The chart size corresponds to the outer circumference of all highlighted cell ranges. The worksheet in the background displays your cell range selection, provided that a worksheet has already been created into which you are inserting this new chart.

If there is no open workbook, clicking **OK** will create a new chart template in a new workbook, regardless of the number of selected cell ranges.

The **Input columns** option determines the number of input values for the chart. When creating a one-year time series for example, the **input columns** option should be set to 12, 1 column per month.
Figure: Choose chart position inside the page grid

Figure: Choose multiple grid cells using CTRL (chart will cover the whole selected range)
The *font size* option sets the font size for all text elements in the chart including various dependent elements such as column width and point sizes.

The sample chart is rendered and configured based on your selections in the chart size window and will be inserted into the selected grid position.

**Figure:** Select font size

If the option *Show datainsert* was activated, the data insert range from the chart control sheet (Chart$n$) is automatically linked into the grid sheet.

**Figure:** Main chart has been placed in the page grid and data insert range was automatically linked (see left side of figure)
**Insert sub chart**

When using unstacked charts, you can insert up to two deviation charts.

Unstacked charts are displayed in the first 5 rows of both horizontal and vertical main charts:

![Figure: Unstacked charts]

There are horizontal and vertical sub chart templates. The available sub chart options depend on the type of main charts that have been created at a given time.

![Figure: Insert horizontal or vertical sub charts]

![Figure: Insert horizontal sub charts only]

![Figure: Insert vertical sub charts only]
The sub chart options are inactive and unavailable for selection when either both sub charts have already been added to a main chart or there is no appropriate main chart to which a sub chart could be added.

**Figure:** Sub chart insert options are unavailable

You may choose from the following predefined sub chart types:

**Figure:** Horizontal and vertical sub charts

Upon inserting a sub chart, select the main chart to which to add a sub chart by clicking on the appropriate chart representation in the dialog box.
Figure: Select main chart to which to add a sub chart

Figure: The first sub chart has been added
Define chart range sizes through margin settings

When adding main and sub charts to a chart object, Chart-me XLS allocates the space for the chart elements automatically. You can view and edit these space allocations by first making the margins visible:

1. Activate the control menu

2. In the Control panel select one or more chart objects (e.g., Chart1), select the General tab and set the Display marks option to Yes. In order to see the effects of your selections displayed on screen automatically, check the Save immediately box. If the Save immediately box is not checked, you need to Confirm your selection to see its effect on screen.
Figure: Control panel

Chart view with visible display marks:

Message 1
Message 2

Figure: Chart with display marks made visible
These margins (visible through the display marks option) determine the amount of space allocated to each of the 3 subcharts within the chart object. You may change these space allocations by modifying the top and bottom margins of a subchart:

![Control panel showing subchart settings](image)

**Figure:** Adjust top and bottom margins in the Control panel

### Chart settings

This section details various options that can be applied to modify existing charts and layout pages.

![Menu ribbon with additional Chart-me XLS features](image)

**Figure:** Menu ribbon with additional *Chart-me XLS* features

### Edit…

The *Edit…* features allow you to modify chart size, font size and x-resolution of existing charts. The *Select chart range* allows you to highlight multiple charts to be edited at the same time.
The Listview check box provides you with an alternative view and selection option of charts. This may prove useful when multiple charts are stacked on top of each other.

To facilitate a cell range selection, you may want to temporarily hide the displayed charts by unchecking the Show charts box and then clicking in the Select field and highlighting a cell range directly on the worksheet.
The checkbox *Resize chart spaces* provides the following three options:

- Chart spaces will not be recalculated and resized
- Chart spaces will only be resized if charts have not been adjusted manually (setting per chart object)
- Chart spaces for all charts will be recalculated and resized

The *Re-apply stylesheet* option determines whether the currently active style sheet will be applied to the selected charts. If the existing style sheet has been modified or a new style sheet was activated, the *Re-apply stylesheet* option allows you to cascade these changes through to the existing charts.

If the number of *Input columns* is changed and if the option *Adapt datainsert* is activated, the linked data insert ranges are automatically resized.

The **Delete** button will remove the selected charts permanently and irrevocably.

If the option *Adapt datasheet* has been selected, the data insert range is also deleted. This will only work with ranges that have been linked with Chart-me XLS functions.

**Shrink…**

The *Shrink…* function reduce the files created with *Chart-me XLS* in size to retain the necessary features used in the chart objects (e.g., chart types, number of data points, x-resolution).

A number of reduction steps are applied including the following:

1. Reduction in the number of data points
2. X-resolution adjustment for bar charts
3. Deletion of unused features such as
   a. Sub charts
   b. Individual data rows
   c. Data types
The elimination of unused elements cannot be undone and results in the loss of aforementioned features. This, however, does not or only slightly affect the existing chart images.

The *Shrink*... function is used to reduce the file in size and therefore its storage requirements and speed up performance.

The following figure shows the *Autoshrink chart* dialog window. You are provided with the option to adjust the X-Resolution for bar charts (also refer to *X-Resolution in column and bar charts*). All other settings are determined automatically.

![Autoshrink chart dialog window](attachment:autoshrink_chart.png)

**Figure:** Autoshrink chart, auto detection

When checking the *Advanced options* box and clicking on *Next*..., you can customize the reduction process in the *Shrink settings* window.

![Autoshrink settings window](attachment:autoshrink_settings.png)

**Figure:** Autoshrink, advance options
Duplicate…

This feature allows you to duplicate an existing chart into one or more identical charts on the same page grid. The **Duplicate…** feature is particularly useful when creating multiple charts of the same type. We recommend first finishing the “master chart,” reducing it in size with the **Shrink…** function, and then duplicating it.

The **Duplicate…** feature steps you through the process with two dialog windows, letting you first select the chart to be duplicated and then choosing the destination position(s).
NOTE: When you duplicate a chart that has not yet been reduced in size with the *Shrink*… feature, a warning will be displayed. Although the duplication process is possible, it may, at least temporarily, result in very large data files along with slow processing times.
**Move and Size**

The *Move and Size* feature allows you to reposition an existing chart by first selecting it:

![Move chart, chart selection](image)

**Figure**: Move chart, chart selection
...and then choosing a new location:

Figure: Select destination range

Check the *More options* box to select a cell range manually as well as resize the chart.

Figure: Move and Size dialog box for advanced options
Snap to grid
The feature repositions the selected charts to align with the layout grid.

Before:

**Figure**: Charts have been added but are not aligned with the layout grid

After:

**Figure**: Charts snapped to grid
Scaling

With the function *scaling*, multiple charts can be grouped to scaling groups, wherein all charts automatically get the same scaling.

**Figure:** Menu item *Scaling*

The following three charts are scaled separately, not commonly over all. This can be misinterpreted and cause to be not understood from the viewer.

**Figure:** Charts that are scaled separately

In the dialog *scaling groups*, multiple charts can be selected and grouped to a scaling group with *Create scaling group.*
The following figure shows three charts, that are scaled commonly by grouping them into a scaling group.
Figure: Charts that are scaled commonly

Scaling groups can be removed in the same dialog.

Figure: Dialog scaling groups
Charts are automatically arranged in one scaling groups, if they are newly inserted. If some changed where made to the existing scaling group, all charts that are inserted afterwards, must be scaled with the scaling procedure described in this paragraph.

**Control menu...**

You may change layout grid and chart settings in the blue formatted cells, cell style *Datainsert*.

<table>
<thead>
<tr>
<th>Message 1</th>
<th>Message 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message 2</td>
<td>Message 2</td>
</tr>
<tr>
<td>Title 1</td>
<td>Title 1</td>
</tr>
<tr>
<td>Title 2</td>
<td>Title 2</td>
</tr>
<tr>
<td>Footnote left</td>
<td>Footnote left</td>
</tr>
<tr>
<td>Footnote right</td>
<td>Footnote right</td>
</tr>
<tr>
<td>Chart title 1</td>
<td>Chart title 1</td>
</tr>
<tr>
<td>Chart title 2</td>
<td>Chart title 2</td>
</tr>
<tr>
<td>Chart title 3</td>
<td>Chart title 3</td>
</tr>
<tr>
<td>Chart title 4</td>
<td>Chart title 4</td>
</tr>
</tbody>
</table>

![Blue formatted data insert cells](image)

**Figure:** Blue formatted data insert cells

<table>
<thead>
<tr>
<th>Custom settings</th>
<th>Chart area</th>
<th>Datainsert</th>
<th>Footnote</th>
<th>Labeling</th>
<th>Linked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculated value</td>
<td>Message</td>
<td>Objectname</td>
<td>Percent 2</td>
<td>Property</td>
<td>Seriesname</td>
</tr>
</tbody>
</table>

![Cell style datainsert](image)

**Figure:** Cell style *datainsert*

Switching between chart representation and chart configuration tabs and locating the appropriate configuration cells may, however, be cumbersome. *Chart-me XLS* provides easy access to various configuration settings through the *Control menu...*

![Menu item Control menu...](image)

**Figure:** Menu item *Control menu...*

Clicking on *Control menu...* opens a dialog window providing a variety of

- configuration settings or
- data insert values

for the current worksheet:
If the current worksheet is a layout grid page with one or more charts, then the control panel window will display one button for each chart on the grid. You can highlight one or more charts to activate the contextual settings for editing.

Figure: Control panel view of available charts and contextual configuration settings
The configuration settings for a chart are presented in multiple tabs to facilitate navigation. When multiple charts are selected at the same time, you can cascade configuration changes to all selected charts simultaneously.

The *Save immediately* option at the bottom of the control panel allows you to apply changes to the configuration cells immediately (when checked), or require you to *Confirm* your changes if the box is not checked.

![Control panel]

**Figure:** Save immediately is deactivated

Selecting the *Listview* checkbox will display the chart objects as an itemized list. This may prove useful when charts are stacked on top of each. The button representation of charts in the control panel follows their chart order positions on the page grid. Control panel chart buttons may thus be in the background and invisible without the listview representation.

![Control panel]

**Figure:** Control panel option *Listview*

To provide a future user of the chart layout page with some configuration options right on the layout page, activate the *Link cells* feature from the control panel.
The following example shows a page layout with four charts.

**Figure:** Page layout example

In this example, we want to provide configuration settings on the layout page for column width, horizontal chart positioning, and the option of displaying the second sub chart (chart 3, needles).

Open the *Control menu* and highlight all four charts.
**Figure:** Control panel

Select the *General* tab and check the items *Column thickness* and *First category start X.*
Figure: Select configuration setting in the control panel for cell linking

Select the Subchart 1 tab and check the Visible option.
Figure: Select additional configuration setting in the control panel for cell linking

Now select with the cursor the cell range on the layout page, which will hold the configuration settings and click *Link cells* in the Control panel window.
**Figure:** Highlight cell range and link cells

Starting at the previously marked cell, the configuration items are listed in turn with blue colored data entry ranges for each item previously selected in the control panel.

**Figure:** Data entry range for configuration settings

Switching Control menu into mode Data (see the following figure) shows data insert ranges of selected chart, that are located in the chart control sheet.
Figure: Control menu in Data mode

Check one or more data insert ranges to be shown near the charts. With Link cells, the selected ranges are automatically linked to the grid sheet.

The linked ranges are positioned automatically. These ranges can simply be moved later on.

The following figure shows a data insert range that has been created by inserting two charts.
Create tables

In the Excel menu Chart-me besides the known diagram features a section shows *Insert Table*. There are three types of tables as templates to choose from:
1. **Table with time series** - by default, a table with a description column and 12 monthly columns is generated.

2. **Table with flat structure** - by default, a table with a description column and 4 columns of data and three bar charts deviation generated.

3. **Table with hierarchy** – has the same construction as the table with a flat structure, with the difference that on the formatting of the line hierarchy levels are taken into account.

![Figure: Menu ribbon with Insert table - features](image)

**Tables with time series**

Based on the chart type **Table with time series** the creation sequence will be shown. After clicking on the icon **Table with time series** the selection menu **Insert Table** appears.

![Figure: Menu ribbon and selection menu Insert table](image)

The following selection options are available:

- **Font size** due to better use of space is recommended size of 8 pt or 10 pt.
- **Paste as new workbook** Creates a new section with table worksheet
- **Paste As New Sheet** Adds to existing folder a new worksheet.
- **Cancel** Exit the function
We create a new workbook with 8 pt font size to.

**Figure:** Selection options at *Insert table - Table with time series*

The newly created workbook contains a time series table composed of a label column and 12 monthly columns.

**Figure:** Creation process *Insert table - Table with time series*
Based on the shown creation logics the other table types `Table with flat structure` and `Table with hierarchy` can be created accordingly.

**Table with flat structure**

The newly created workbook contains a worksheet with a table with 5 columns and 3 deviation charts.

**Table with hierarchy**

The newly created workbook contains a worksheet with a hierarchically structured table consisting of 5 columns and 3 deviation charts as a default.
Overview of the table worksheet elements

Table display range
In the table display part appear all the later in a report compiled content and design elements.

Other worksheet ranges
In addition to the first visible table display part AV37 up CQ53 there are more directly “visible” worksheet ranges that are necessary for creating a table. The following worksheet ranges are for input and selections, which are responsible for the definition of the table, as well as the appearance and dimensions of the selected table and diagrams. With the creation of each table type a few standard settings have already been taken, which can be changed by the user as necessary. A detailed description of the parameters follows in the section Table settings.

The worksheet is divided into nine different work ranges:
1 Data insert
2 Row settings
3 Highlighting
4 Chart visibility
5 Footnote references
6 Column settings
7 Base settings
8 Detail settings
9 Table chart settings

Figure: Table overview with navigation hyperlinks

Figure: Worksheet ranges Data insert, Row settings and Column settings
Figure: Worksheet ranges 3 Highlighting - 4 Chart visibility - 5 Footnote references and 9 Table chart settings

Figure: Worksheet Range 7 Base settings and 8 Detail settings
Datainsert

The datainsert range is the central entry point for the flow data and column-related meta data such as column header, width, data types, formatting and visibility.

Possible settings are enter x to show the column, leave empty to hide the column. This feature is only available together with Chart-me XLS AddIn.

Row settings

In the row settings parameterizations are made relating to the rows of the tables and bar charts.

Column Hierarchy level: Herewith the hierarchical table row display can be controlled. Possible values are 1, 2 and 3. Automatic adjustment of row heights is only available together with Chart-me XLS AddIn.
The column *Operator* is text only for better comprehension and does not perform any calculation.

Column *Visible*: possible settings are *x* to show the row and *i* to interrupt chart axis lines, empty to hide the row.

Column “*There off*” highlights a row by indentation of values in order to show that this row is not part of a total.

The hyperlink *Table* navigates back to the table overview.

**Highlighting**

![Highlighting](image)

**Figure**: Range for highlighting

In the range highlighting single values in the table can be highlighted.

Possible settings are: the numbers 1 - 9 for footnote comments, *X* for highlighting in neutral color, *R* for red and *G* for green highlighting.

**Chart visibility**

![Chart visibility](image)

**Figure**: Range for Chart visibility

Whether a chart will be displayed or not is marked in the Chart visibility range.
### Footnote references

<table>
<thead>
<tr>
<th>Text:</th>
<th>Comment 1</th>
<th>Comment 2</th>
<th>Comment 3</th>
</tr>
</thead>
</table>

**Title**
- Delta Inc.
- Sales in Mio EUR
- AC, BU
- 2013, 2014
- Footnote
- Hi-Chart GmbH, 2015

**Figure:** Range for footnote references

The marks delivered in **Highlighting** by giving a number or character for footnotes are filled with text in this range and displayed at the end of the table.

<table>
<thead>
<tr>
<th>Chart 1</th>
<th>Chart 2</th>
<th>Chart 3</th>
<th>Chart 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column</td>
<td>Column</td>
<td>Column</td>
<td>Column</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Figure:** Range for footnotes references

If the setting **view** is switched to **output**, footnotes will be shown at their correct position at the bottom of the table.
Column settings

<table>
<thead>
<tr>
<th>Column settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Column</strong></td>
</tr>
<tr>
<td><strong>Title text</strong></td>
</tr>
<tr>
<td><strong>Data type</strong></td>
</tr>
<tr>
<td><strong>Column widths</strong></td>
</tr>
<tr>
<td><strong>Bold</strong></td>
</tr>
<tr>
<td><strong>Italic</strong></td>
</tr>
<tr>
<td><strong>Grey</strong></td>
</tr>
<tr>
<td><strong>Highlight</strong></td>
</tr>
</tbody>
</table>

Figure: Input range for column settings

The range Column settings is used to create the table headers and to specify the display of columns.

The row Title text is used to create the column title.

In the row Data type display of row headers is configured. The detail configuration of the 4 data types can be done in the stylesheet.

In the row Column widths the widths of each column can be set. This can be done either by selecting value in the drop down list or by entering a number in fontsize (fs).

Enter an x in the rows Bold, Italic, Grey to activate this type of format.

Highlighting: Enter x to show column with coloured highlighting.

Base settings

<table>
<thead>
<tr>
<th>Base settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fontsize</strong> 6 pt</td>
</tr>
<tr>
<td>Sort column Ascending</td>
</tr>
<tr>
<td>Title rows (1...4) 4</td>
</tr>
<tr>
<td>View Design</td>
</tr>
<tr>
<td>Width 924 px</td>
</tr>
</tbody>
</table>

Figure: Input range for Base settings

The input range for Base settings inputs are provided referring to Fontsize, Sort column, number of Title rows and View type. The current table Width is shown for your information.
### Figure: Input range for Detail Settings

The input range for Detail Settings includes more extensive information on the appearance of the table and graphs. As can be seen from the + mark above cell DJ, this is an area in which by extending through the detailed display further adjustment ranges for the table and chart formatting can be explored.

In general, these inputs are handled only once when fine tuning the layout. This range covers the definition of number formats to underlying base values and deviations, the representation of the hierarchical levels used, and scaling settings included in the presentation of diagrams and descriptions.
**Figure:** Detailed inputs for *Detail Settings* for data formats, hierarchy levels and scaling

**Table chart-settings**

<table>
<thead>
<tr>
<th>Chart 1</th>
<th>Chart 2</th>
<th>Chart 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labelling</strong></td>
<td><strong>Display</strong></td>
<td><strong>ΔBU</strong></td>
</tr>
<tr>
<td><strong>Axis</strong></td>
<td><strong>ΔPY</strong></td>
<td><strong>Absolute</strong></td>
</tr>
<tr>
<td>Value 1</td>
<td>2</td>
<td>Value 1</td>
</tr>
<tr>
<td>Value 2</td>
<td>1</td>
<td>Value 2</td>
</tr>
<tr>
<td>Operation</td>
<td>(2 - 1) / 1</td>
<td>Operation</td>
</tr>
</tbody>
</table>

**Figure:** Input range for *Table chart-settings*

In this part the appearance of three possible bar graphs and calculation process in terms of absolute and percentage representation is determined.

In order to hide a chart, the entry *Display* should be deleted. Thereby the chart is no more part of common scaling with other charts.
Table settings

Parameterizations

The following section describes the detailed settings for (graphical) Tables. They are represented according to their classification in the data definition ranges 1 to 9.

1 Datainsert
2 Row settings
3 Highlighting
4 Chart visibility
5 Footnote references
6 Column settings
7 Base settings
8 Detail settings
9 Table chart settings

1 Datainsert

The datainsert range is the central entry point for the flow data.

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Datainsert</td>
<td>Base</td>
<td>Base</td>
<td>Base</td>
<td>Percent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Regional Income</td>
<td>244</td>
<td>300</td>
<td>308</td>
<td>0.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>R&amp;D Costs</td>
<td>83</td>
<td>66</td>
<td>111</td>
<td>-0.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Central Marketing</td>
<td>45</td>
<td>18</td>
<td>26</td>
<td>-0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Central Admin</td>
<td>86</td>
<td>82</td>
<td>27</td>
<td>-0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Other Inc. &amp; Costs</td>
<td>1</td>
<td>12</td>
<td>55</td>
<td>11.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Integration Costs</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>-0.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>FPA</td>
<td>123</td>
<td>99</td>
<td>2</td>
<td>-0.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Special Prod. Costs</td>
<td>300</td>
<td>198</td>
<td>123</td>
<td>-0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Clean EBIT</td>
<td>33</td>
<td>102</td>
<td>213</td>
<td>2.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Clean DA</td>
<td>90</td>
<td>51</td>
<td>145</td>
<td>-0.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Clean EBITDA</td>
<td>-23</td>
<td>51</td>
<td>22</td>
<td>-3.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>COGS fb (excl. FPA)</td>
<td>44</td>
<td>23</td>
<td>90</td>
<td>-0.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>SPC</td>
<td>45</td>
<td>5</td>
<td>99</td>
<td>-0.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>FPA in COGS fb</td>
<td>-23</td>
<td>12</td>
<td>88</td>
<td>-1.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>COGS fb (incl. FPA)</td>
<td>-24</td>
<td>17</td>
<td>114</td>
<td>-1.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Net Sales</td>
<td>376</td>
<td>555</td>
<td>466</td>
<td>0.48</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure: Datainsert range

Flow data is the data that can be displayed directly in the table as the name and values. They can be entered here directly or adapted from specific data sheets.
2 Row settings

In the row settings parameterizations are made referring to the rows of the tables and bar charts. Settings can be made referring hierarchy levels, operators, chart colours, visibility and "ThereOf"-rows.

![Table settings](image)

**Figure:** Datinsert ranges for row settings

**Hierarchy levels**

Hierarchies are mainly used with table with hierarchy as table type. The table module provides up to 4 hierarchies. When using hierarchies its corresponding hierarchy level must be specified for each row.

The definition of hierarchical levels and their associated parameters are made in the Settings section. Among other things, a level is defined by the indentation of a certain number of blanks in the label.

![Hierarchy levels](image)

**Figure:** Datinsert range for hierarchy levels
Operators

The operators +, - , = are simple text markers in order to help understand the calculation logic of the table. It should be noted that the operators generate any calculations. In the flow data so far only calculated values are used. (It would be conceivable, however, that in a separate data sheet calculation logic is built in, or even directly within the flow data input range.)

![Figure: Selection options for field operator](image)

**Chart color**

The *chart color* specifies the color in which the bars of the deviation diagrams are to be shown. In general, red for negative and green used for a positive difference. In the case of a cost analysis, this sequence can be inverted accordingly.

The color neutral is generally used for special deviation neutral situations or for displaying stock sizes.

![Figure: Selection options for chart color](image)
Visible

Either a row can be shown and thus marked at *visible* with `<x>` or classified as invisible and marked in the respective field with `<blank>`.

<table>
<thead>
<tr>
<th>Hierarchy level</th>
<th>Operator</th>
<th>Chart color</th>
<th>Visible</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>1</td>
<td>Red-green</td>
<td>x</td>
</tr>
<tr>
<td>48</td>
<td>3+</td>
<td>Green-red</td>
<td>x</td>
</tr>
<tr>
<td>49</td>
<td>3+</td>
<td>Green-red</td>
<td>x</td>
</tr>
</tbody>
</table>

**Figure:** Insert range for *visible*

A special case is the marking with `<i>` in which the chart axis line is interrupted. This is useful if, for example, when within a table two ranges are to be presented in a differentiated way. The example how to handle this case is explained below.

<table>
<thead>
<tr>
<th>Hierarchy level</th>
<th>Operator</th>
<th>Chart color</th>
<th>Visible</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>1</td>
<td>Red-green</td>
<td>x</td>
</tr>
<tr>
<td>48</td>
<td>3+</td>
<td>Green-red</td>
<td>x</td>
</tr>
</tbody>
</table>

**Figure:** Input parameters for *visible*

*"ThereOf"*-row

By using the mark `<x>` in the *"ThereOf"*-row the given values will be indented and thus signalizing that this value is not involved in the summation.

**Figure:** *Data insert range for "ThereOf"*-row
The scope of the indentation is set in the *Settings under hierarchy levels - Indent*. Default is 4 spaces.

![Table showing hierarchy levels and indentation settings](image)

**Figure:** *Data insert range for indentation*

**Examples**

![Row settings table](image)

**Figure:** *Data insert ranges for row settings*

![Table showing row settings in table and charts](image)

**Figure:** *Representation of row settings in table and charts*
Difference between `<i>` and `<blank>`

Case Visible `<i>`

**Figure**: Datinsert ranges for the definition of an interrupted axis

In *visible* the corresponding row is marked with `<i>` and in the flow data range the cell contents are outspaced. The labeling cell gets a leading `<blank>`.

As can be seen in the graph by using the `<i>` mark the original row structure remains and only the axis is interrupted.

**Figure**: Charts with interrupted axis lines
Case Visible <blank>

<table>
<thead>
<tr>
<th>Hierarchy level</th>
<th>Operator</th>
<th>Chart color</th>
<th>Visible</th>
<th>Format</th>
<th>Highlight</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>1</td>
<td>Red-green</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>3 +</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>3 +</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>1 =</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>3 +</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>3 +</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>3 +</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>1 =</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>2</td>
<td>Red-green</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>2 +</td>
<td>Red-green</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>3</td>
<td>Red-green</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>3 +</td>
<td>Green-red</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>2 +</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>2 +</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>2 =</td>
<td>Green-red</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>1</td>
<td>Red-green</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the corresponding field in visible is only marked with <blank>, as we can see in the following figure, the two marked rows are simply omitted in table and charts.

**Figure**: Datinsert ranges for hierarchy level, operator, chart color and visibility

**Figure**: Table with hierarchy and deviation charts

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3 Highlighting

By using *highlighting* some special cell-based ranges in the table can be marked.

![Highlighting](image)

**Figure:** Cell-based input options in the *highlighting* ranges

The following options are available:

- **X** The specific location will be highlighted with a neutral color
- **R** The specific cell will be marked with red
- **G** The specific cell will be marked with green
- **number** The specific cell will be marked with a number, which represents in the footnote range a specific text and displayed below the table.

<p>| | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan</td>
<td>Feb</td>
<td>Mar</td>
<td>Apr</td>
<td>May</td>
<td>Jun</td>
<td>Jul</td>
<td>Aug</td>
<td>Sep</td>
<td>Oct</td>
<td>Nov</td>
</tr>
<tr>
<td>Berlin</td>
<td>266</td>
<td>245</td>
<td>234</td>
<td>255</td>
<td>257</td>
<td>289</td>
<td>260</td>
<td>299</td>
<td>303</td>
<td>268</td>
<td>269</td>
</tr>
<tr>
<td>Munich</td>
<td>215</td>
<td>184</td>
<td>211</td>
<td>294</td>
<td>193</td>
<td>260</td>
<td>232</td>
<td>224</td>
<td>273</td>
<td>224</td>
<td>217</td>
</tr>
<tr>
<td>Dresden</td>
<td>234</td>
<td>230</td>
<td>274</td>
<td>247</td>
<td>154</td>
<td>231</td>
<td>255</td>
<td>280</td>
<td>355</td>
<td>271</td>
<td>174</td>
</tr>
<tr>
<td>Leipzig</td>
<td>293</td>
<td>322</td>
<td>438</td>
<td>420</td>
<td>193</td>
<td>323</td>
<td>408</td>
<td>476</td>
<td>444</td>
<td>379</td>
<td>278</td>
</tr>
<tr>
<td>Cologne</td>
<td>733</td>
<td>902</td>
<td>1.270</td>
<td>1.386</td>
<td>695</td>
<td>1.269</td>
<td>1.714</td>
<td>2.142</td>
<td>2.220</td>
<td>2.274</td>
<td>1.946</td>
</tr>
<tr>
<td>Hamburg</td>
<td>1.173</td>
<td>1.533</td>
<td>1.905</td>
<td>1.940</td>
<td>556</td>
<td>1.386</td>
<td>2.057</td>
<td>2.999</td>
<td>4.440</td>
<td>5.003</td>
<td>2.335</td>
</tr>
</tbody>
</table>

**Figure:** *Table with flat structure* and cell-based highlightings
4 Chart visibility

The table module of Chart-me XLS provides the display of up to three deviation bar charts. If the corresponding cells are marked with <x>, the related charts are displayed to the right of the table. But they still have to be defined in terms of design and calculation rules and which will be explained in detail in chapter 9 – Chart description.

Figure: Selection ranges for visible charts

In the given range, all or no or some charts can be selected for display. Selection is made by using <x>-marks.

Figure: Here, all three marked charts are displayed.
5 Footnote references

Texts provided in the input ranges of Footnote references and titles will be shown by default in the corresponding ranges above and below the table.

<table>
<thead>
<tr>
<th>Text</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Comment 1</td>
<td>Delta Inc.</td>
</tr>
<tr>
<td>② Comment 2</td>
<td>Sales in Mio EUR</td>
</tr>
<tr>
<td>③ Comment 3</td>
<td>AC, BU</td>
</tr>
<tr>
<td></td>
<td>2013, 2014</td>
</tr>
<tr>
<td></td>
<td>Footnote</td>
</tr>
<tr>
<td></td>
<td>Hi-Chart GmbH, 2015</td>
</tr>
</tbody>
</table>

**Figure:** Text data input ranges for comments, title and footnote

The given number of the highlightings range will be connected at this place to the corresponding text delivered here. Eleven (11) different comment fields can be filled in.

<table>
<thead>
<tr>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>① with PGr1</td>
</tr>
<tr>
<td>② w/o Reg13</td>
</tr>
<tr>
<td>③ 1 day more</td>
</tr>
</tbody>
</table>

**Figure:** Text data input range for comments

**Figure:** Table with flat structure and empty text fields

The title can be up to four lines and can occupy the whole width of the table. Positions can be found from cell AY39. The footnote and comments at end of table.
Figure: Positions of standard text display ranges

Figure: Text data input range with data in all three text blocks

Figure: Table with flat structure empty title fields and filled in comments

Figure: Table with flat structure filled in four row title fields without footnote and comments
With the new table tool from Hi-Chart it's very easy to build professional report tables. By adding charts the table will be more expressive.

### Figure: Table with flat structure filled in title, footnote and comments

<table>
<thead>
<tr>
<th>Month</th>
<th>Berlin</th>
<th>Munich</th>
<th>Dresden</th>
<th>Leipzig</th>
<th>Cologne</th>
<th>Hamburg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>206</td>
<td>213</td>
<td>234</td>
<td>293</td>
<td>733</td>
<td>1,173</td>
</tr>
<tr>
<td>Feb</td>
<td>245</td>
<td>184</td>
<td>211</td>
<td>322</td>
<td>902</td>
<td>1,533</td>
</tr>
<tr>
<td>Mar</td>
<td>234</td>
<td>204</td>
<td>247</td>
<td>438</td>
<td>1,270</td>
<td>1,905</td>
</tr>
<tr>
<td>Apr</td>
<td>255</td>
<td>193</td>
<td>154</td>
<td>420</td>
<td>1,386</td>
<td>1,940</td>
</tr>
<tr>
<td>May</td>
<td>257</td>
<td>260</td>
<td>231</td>
<td>193</td>
<td>695</td>
<td>5,186</td>
</tr>
<tr>
<td>Jun</td>
<td>289</td>
<td>232</td>
<td>255</td>
<td>323</td>
<td>1,260</td>
<td>556</td>
</tr>
<tr>
<td>Jul</td>
<td>289</td>
<td>224</td>
<td>280</td>
<td>406</td>
<td>1,714</td>
<td>2,057</td>
</tr>
<tr>
<td>Aug</td>
<td>303</td>
<td>227</td>
<td>355</td>
<td>470</td>
<td>2,142</td>
<td>2,999</td>
</tr>
<tr>
<td>Sep</td>
<td>289</td>
<td>224</td>
<td>271</td>
<td>444</td>
<td>2,220</td>
<td>4,440</td>
</tr>
<tr>
<td>Oct</td>
<td>204</td>
<td>217</td>
<td>174</td>
<td>379</td>
<td>2,274</td>
<td>5,003</td>
</tr>
<tr>
<td>Nov</td>
<td>304</td>
<td>274</td>
<td>244</td>
<td>415</td>
<td>1,946</td>
<td>2,335</td>
</tr>
<tr>
<td>Dec</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,739</td>
<td></td>
</tr>
</tbody>
</table>

### Column settings

#### Column
Is the numbering of the data column referenced for example when calculating the values in the diagram and calculation procedure. There are a total of 15 data columns.

#### Header
Is the direct column naming. As far as needed, other names can be added using the header definition.

#### Data type
By using the data types (ACT, BU, PY, FC) columns for better differentiation are identified graphically.

### Figure: Selection options for field data type
**Column width** The *column width* can be defined as for the section width of a chart by fixed sizes such as days, weeks, months, quarters, years. Moreover, even the type label stands for text fields and value for numeric fields.

**Figure:** Selection options for field *column width*

**Fields for column marks** – Input <blank> or <X>

- **Bold**
  Marked with <blank> or <X> indicates whether the signature of the corresponding column should be displayed normal or bold.

- **Italic**
  Marked with <blank> or <X> indicates whether the signature of the corresponding column should be displayed normal or in italics.

- **Grey**
  Marked with <blank> or <X> indicates whether the characters of the corresponding column should be displayed normal or grey.

- **Highlight**
  Marked with <blank> or <X> indicates whether the header of the corresponding column should be underlined with an ochre color.

**Figure:** *Datainsert* ranges for highlightings

In the above example, column 1, shall receive a special formatting, while columns 2 and 3 are shown normally.
Case studies

By the following combinations of selections the parametrisation can be clearly shown

Case 1 – Column Jan and Dec using all special column formattings

Figure: Selection option for field format

Format In the Format field is set, what number format type is applied to the column. There are basic, percent, Δ base and Δ percent to choose from. The format types can be specified in more detail in the Settings. (see chapter "Settings")

Visible Marked with <blank> or <X> indicates whether the corresponding column should be visible or not.

Figure: Datainsert ranges for column-based highlightings
Case 2 - Column Jan marked with BU, bold and highlighted, Columns Feb and Mar invisible, Column Dec bold and highlighted

Figure: Highlighted columns in Table with flat structure

Case 3 - Column Jan, Feb, Mar visible, PY and highlighted, Columns Jan and Feb without flow data, Column Dec bold and highlighted

Figure: Table with hidden columns

Figure: Datainsert ranges for column-based highlightings

© Hi-ChartGmbH, Berlin
Empty cells are shown in the table according to number format as "0".

In contrast to the "fixed" positioned title, footnote and commentary it is also possible by using the preset Excel cell structure to generate individual table headers and headers and remodel value columns into text columns.
Attaching a comment column is simply done by adding a text column to the existing value columns. In the title text box eg. "Comment" is inserted. The data type field is left blank and column width is marked with the identifier "labelling". The format field also remains empty and the column is still marked with <x> in Visible. In the values cell then the corresponding text can be entered.

If there is a need, individual, cell-related header and column headers can be inserted in the rows 39 to 41. The range from line 42 is reserved for the title text of the data input range and the related formatting specifications for data types, etc.
7 Base settings

In the input field for the display parameter details are given to the overall representation of a table in terms of font size, sorting, header lines, display type and size of the table in pixels.

Fontsize

According to the specified font size in points (pt), the entire table is resized. Useful sizes are usually pt 6-12.

Title rows (1..4)

Specifies how many rows should be reserved in the header range for headlines. By default, 4 are provided.

Sort column

As criteria for sort column can be used value columns 1 to 15 as well as charts 1 to 3. <blank> signifies no sorting takes place.

Sort order

By referring to the selected sort column the table can be sorted in an ascending or descending order.
View

You can choose between design and output. By default, the Design view is set. When switching to output then the footnote and the defined comment lines are appended to the end of the table.

Example

As can be seen in the example, the entire table is reformatted to font size 6 pt and sorted in descending order with respect to the Feb-column. Since the view is set to output, the footnote and comment lines are displayed at the bottom of the table.

Figure: Flat, fully formatted and sorted Output table with individual table headings and column for comments
8 Detail Settings

The Settings range includes more extensive information on the appearance of the table and graphs. By clicking on the + mark above the cell DJ, further setting ranges for the table and chart formatting can be explored. In general, these inputs are handled only once when fine tuning the layout. This range comprises the definition of number formats to underlying base values and deviations, the representation of the hierarchical levels used, and scaling settings used for the presentation of diagrams and descriptions.

![Figure: „Hidden“ Datainsert range settings (accessible by clicking on +-mark)](image)

![Figure: Datainsert range settings](image)
In this range the number format for absolute and relative base values are defined. Input options, see below.

### Number format
#### base values

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>.</td>
<td>.</td>
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</tr>
<tr>
<td>48</td>
<td>.</td>
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<td>49</td>
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<td>55</td>
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<td></td>
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<td>56</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
</tbody>
</table>

- **Decimal places**: 0
- **Thousands separator**: Yes
- **Hide null values**: Yes
- **Pos. sign**: +
- **Neg. sign**: -
- **Number of thousands off**: 0
- **Prefix**: 
- **Suffix**: 
- **Number format**: # # #, # # #

#### percent values

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>.</td>
<td>.</td>
<td></td>
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<td>59</td>
<td>.</td>
<td>.</td>
<td></td>
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<td>60</td>
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<td></td>
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<td>61</td>
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<td>62</td>
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<td></td>
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<td>63</td>
<td>.</td>
<td>.</td>
<td></td>
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<tr>
<td>64</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
</tbody>
</table>

- **Decimal places**: 0
- **Thousands separator**: Yes
- **Hide null values**: Yes
- **Pos. sign**: +
- **Neg. sign**: -
- **Number of thousands off**: 0
- **Prefix**: 
- **Suffix**: %
- **Number format**: # # # %, # # # %

**Figure**: Datinsert range for number format base values

In this range the number format for absolute and relative deviation values are defined. There are provided the same input options for both basic as well as deviation values.

### Number format
#### deviations base values

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>66</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>.</td>
<td>.</td>
<td></td>
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<tr>
<td>69</td>
<td>.</td>
<td>.</td>
<td></td>
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<tr>
<td>70</td>
<td>.</td>
<td>.</td>
<td></td>
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<tr>
<td>71</td>
<td>.</td>
<td>.</td>
<td></td>
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<td>72</td>
<td>.</td>
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<td></td>
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<td>73</td>
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<td></td>
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<td>74</td>
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<td></td>
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<td>75</td>
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<td>76</td>
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<td>78</td>
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<td>79</td>
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<td>81</td>
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<td></td>
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<tr>
<td>82</td>
<td>.</td>
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<td></td>
</tr>
<tr>
<td>83</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
</tbody>
</table>

- **Decimal places**: 0
- **Thousands separator**: Yes
- **Hide null values**: Yes
- **Pos. sign**: +
- **Neg. sign**: -
- **Number of thousands off**: 0
- **Prefix**: 
- **Suffix**: 
- **Number format**: + # # #, ± # # #

#### deviations percent values

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>.</td>
<td>.</td>
<td></td>
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<tr>
<td>85</td>
<td>.</td>
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<td>86</td>
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<td>87</td>
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<td>88</td>
<td>.</td>
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<td>89</td>
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<td>90</td>
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<td>98</td>
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<td></td>
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<tr>
<td>99</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
</tbody>
</table>

- **Decimal places**: 0
- **Thousands separator**: Yes
- **Hide null values**: Yes
- **Pos. sign**: +
- **Neg. sign**: -
- **Number of thousands off**: 0
- **Prefix**: 
- **Suffix**: %
- **Number format**: # # # %, ± # # # %

**Figure**: Datinsert range for number format deviations

**Decimal places**
- `<0>` means without decimal places, starting with `<1>` indicates respective number.

**Thousands separator**
- `<yes>` adds separator defined as default in Excel, `<no>` without separator

**Hide null values**
- `<yes>` hides zeroes, `<no>` keeps zeroes

**Pos. Sign**
- `<blank>` without sign, `<+>` with pos. sign
Neg. sign <blank> without sign, <> with neg. sign
Number of thousands off hides <n> thousands, <blank> shows default.
Suffix adds special characters to values like symbols for currency (%,
Number format shows the number format in the personalized Excel standard

<table>
<thead>
<tr>
<th>Hierarchies</th>
<th>Indent</th>
<th>Indent</th>
<th>Row height</th>
<th>Row height</th>
<th>Bold</th>
<th>Italic</th>
<th>Grey</th>
<th>Border</th>
<th>Row height</th>
<th>Row height</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># spaces</td>
<td>ThereOf row</td>
<td></td>
<td>next row</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1,700 ts</td>
<td>3,300 ts</td>
<td>x</td>
<td>0</td>
<td>0</td>
<td>x</td>
<td>18 pt</td>
<td>26 pt</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1,700 ts</td>
<td>0,000 ts</td>
<td>x</td>
<td>0</td>
<td>0</td>
<td>x</td>
<td>18 pt</td>
<td>0 pt</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>4</td>
<td>1,600 ts</td>
<td>0,000 ts</td>
<td>0</td>
<td>0</td>
<td>x</td>
<td>x</td>
<td>17 pt</td>
<td>0 pt</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1,600 ts</td>
<td>0,000 ts</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>x</td>
<td>17 pt</td>
<td>0 pt</td>
</tr>
</tbody>
</table>

Figure: Data insert range for hierarchy levels

The entry range hierarchy levels allows settings for up to four hierarchies. Initially the defined default values in the stylesheet are applied. These settings apply to the formatting of the table row (as well as the diagram row) of a particular hierarchy level.

Input fields
Indent -
# spaces: Indents the text of the labelling column by the given number of blanks to the right.
ThereOf row: Indents the text of the labelling column of a ThereOf-row by the given number of blanks to the right.
Row height: Insertion of the value in fontsize (fs) for the height of the given row.
Row height - next row: Insertion of the value in fontsize (fs) for the height of the next row. Thus facilitating the building of layout blocks.
Bold: <x> shows the chosen hierarchy level in bold, <0> for normal display.
Italic: <x> shows the chosen hierarchy level in italics, <0> for normal display.
Grey: <x> shows the chosen hierarchy level in grey, <0> for normal display.
Border -
Bottom: <x> shows for the chosen hierarchy level an underline, <0> for normal display without underline.

Display fields
Row height: shows the value for the height of the present row in pixel which was earlier calculated by Chart-me XLS according to the given fontsize input.
Row height - next row: shows the value for the height of the following row in pixel which was earlier calculated by Chart-me XLS according to the given fontsize input.
In this input range of settings, the values for the appearance of the charts and their adaptation to their representable value ranges in terms of absolute and percentage deviations are defined. These parameters therefore determine crucially the appearance of the respective graphs.

**Settings Absolute Deviations**

The graphical limits of the diagrams are automatically determined and adjusted in the rule. Likewise, the setting of the graph elements, initially are made in the stylesheet. In special cases it may happen that the user wants to make certain settings manually.

**Figure: Datainsert range for absolute and relative deviations in charts**

**Scaling**

Y1, Y2 enables different scaling for different value ranges

Scaling scaling factors that are automatically calculated from the input of the data input ranges

Manual scaling factor is given manually. <blank> will use the automatically calculated factor.

Automatic scaling will be calculated with the shown factor.
Character bar

The default setting of the graphic elements of bar chart can be changed according to the selection menu. Width shows how much space in pixels is occupied by the corresponding element.

Limit

Using a scaling factor in limit, two normally incompatible value ranges can still be presented in a legible manner.

Percentual deviations

The same input rules for absolute deviations as shown in the previous section are valid also percentage deviations.

Chart-me XLS identifies automatically the limit percentage for Y1, Y2.
**Character needles**

For the display of percentage variances *Chart-me XLS* selects according to the *IBCS* standards needles as graphic elements. These are composed of a base part and header part. Consequently, using personalized representation, a needle line as well as a pin head can be selected from the drop-down list.

---

**Figure:** Selection list for needle line and pin head

**Limit exceeding variances and Limit text**

---

**Table:**

<table>
<thead>
<tr>
<th>Percent variances</th>
<th>Scaling</th>
<th>Value</th>
<th>Character pos.</th>
<th>Character neg.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>man.</td>
<td></td>
<td>Text</td>
<td>Text replacement</td>
</tr>
<tr>
<td></td>
<td>auto.</td>
<td></td>
<td></td>
<td>text replacement</td>
</tr>
<tr>
<td>Y1</td>
<td>3.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y2</td>
<td>0.49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

- Limit between two different scaling factors (Y1 and Y2).
- Default is empty.

---

**Text**

- **Value** is the value in % from which on the display form will be changed. Within this limit, all the elements such as needles, needle head and texts are shown.
- **Character pos.** shows the symbol which indicates exceeding limits in a pos. direction.
- **Character neg.** shows the symbol which indicates exceeding limits in a neg. direction.

---

**Limit text**

- **Text** is the value in % from which on the text display will be substituted by a symbol.
- **Text replacement pos.** shows the symbol which will substitute text when exceeding limits in a pos. direction.
- **Text replacement neg.** shows the symbol which will substitute text when exceeding limits in a neg. direction.

---

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Example

In the following example can be seen how a percent deviation that exceeds the limit of 999% positive (+1.100%) is plotted in the middle diagram: A needle line without header and text, in which the arrowhead indicates that the % - value exceeds the limit value of 200%.

In the lower part is shown that the deviation of +209% exceeds the limit of 200%, but lies below the text representation limit of 999%. Thus it is shown with a shorter needle line and arrow but with text. The properties of this parameterization will be obvious when compared to the presentation of value +152%, which is within defined boundaries.

Figure: Forms of representation when limits are exceeded

Example

Hierarchies partially bold without bottom border

Figure: Different selection options for hierarchy levels

The figure below shows how the representation changes when hierarchies are shown only partially bold and without a frame. In addition, two data rows are labeled "visible", but without input values.

Figure: Table and charts without bottom border
Figure: Scenario option for table with hierarchy

The following example shows a „default” representation of a table with hierarchy, where all hierarchy levels have a bottom border and levels are indicated by indented spaces.

Figure: „default” representation of table with hierarchy

Examples

By replacing the default graph symbols personalized deviation bar charts can be designed easily.

Figure: Selection ranges for graphical representation symbols

Bar blocks were replaced by bubbles (points) in absolute deviations and needle lines by dotted lines in percent deviations.
9 Table chart settings

In this part the appearance of three possible bar graphs and calculation process in terms of absolute and percentage representation is determined.

Parameterizing input options are identical for all three charts.

Figure: Data insert range for chart description
The options will be shown referring to Chart 1.

![Chart 1](image1.png)

**Labelling** Text entry, showing the diagramm title.

The title appears in the middle of the chart above the axis.

![Chart 2](image2.png)

**Display**

According to the selection <absolute> / <percentual> the appropriate chart type is generated.

**Axis**

The axis is formatted according to the selected data type. There are the values of ACT, BU, PY, FC available.

![Chart 3](image3.png)
Value 1

The row numbers 1 to 15 of the value columns are available

Value 2

The row numbers 1 to 15 of the value columns are available

Calculation process

If in field display <absolute> was chosen, the subtraction result from value 1 and value 2 form the representation for the deviation chart. When displaying <percentual> the subtraction is additionally divided by value 1
According to the inputs made in the above figure the resulting display will be the following, presented in the example below::

- absolute previous year deviation in chart 1,
- percentual deviation of previous year in chart 2 and
- absolute Actual-Budget-deviation in chart 3.

Figure: Table with absolute and percentual deviation charts

Figure: Zoom on absolute and relative deviation charts
Variations 1

As can be seen in the following case, it may happen that, for example, no axis is to be displayed. In this case, the content of the field axis is simply set to <blank>.

Figure: Deviation charts without axis
Variations 2

If the range will be used for other objects than deviation charts, by deleting all content of the input field in the charts the display range will be preserved. Visibility markers <x> for charts in chart selection range must be set.

Figure: Space of deviation charts reserved for other chart types

Figure: Table display with free-for-use chart range
Control panel

All of the previously discussed details of parameterizing can also be done very easily via control panel. This has the further advantage that the parameterization is performed in a targeted way and it is easier to see which parameters may not be necessary or are even missing. In addition, this also prevents from frequent switching in the worksheet.

With respect to the input rules the same as in the corresponding data entry fields apply.

![Control panel](image)

Figure: Selection Control menu…

![Control panel](image)

Figure: Control panel
Stylesheet

The stylesheets received a new range for table definitions.

Figure: Calling Stylesheet via Options

New range 3. Tables

Figure: Default Stylesheet with new definitions range for tables

Figure: Definitions range column widths and row heights
**Figure:** Definitions range *hierarchy levels*

For example, when all *hierarchy levels* are provided with an underlying bottom border, an existing sheet can be duplicated and renamed and then be modified accordingly.

**Figure:** Stylesheet – Example with newly created sheet *Demo*

**Figure:** New style *Demo*

**Other features...**

**Function Edit**

In the Table module the Edit function is also active. Thus, font size changes and new style sheet definitions can be applied to tables.
Figure: Graphical table layout according to old stylesheet definition

Figure: Style switched to Demo

Calling menu Edit provides new stylesheet definition for present table.

Figure: Activate function Edit
Figure: Selection options under edit

Figure: Settings– Re-apply stylesheet marked

Figure: New graphical table with settings from stylesheet Demo

Tools
More

- Reset chart...

Resets a chart to its original configuration and deletes all data.

When Reset chart... is selected from the layout page with one or more charts, the following dialog window appears, in which you can select the charts to be reset.

![Dialog box Reset chart](image)

**Figure**: Dialog box Reset chart

- Clone settings...

For every chart on the page layout sheet, there is a chart configuration sheet, which contains all chart settings and data entry ranges for that single chart.

![Copy settings dialog box for clone function](image)

**Figure**: Copy settings dialog box for clone function

The Clone settings... function copies the settings of one such chart configuration tab to another. You may specify both a source workbook and worksheet and a destination workbook and worksheet. Both workbooks must already be opened in Excel.
All data entry and configuration range are named with Excel name ranges. The clone function copies all name range ranges to the new worksheet, which correspond to the character string defined in the *Names prefix* field.

The *Style-filter* allows you to further limit the copy process to a particular cell format.

---

**Merge styles…**

Excel defined cell styles are often duplicated, when copying multiple tabs into a single Excel workbook. This occurs primarily if the cell styles carry the same predefined name but vary slightly in their definition.

![Excel cell styles](image)

**Figure:** Excel cell styles

Although the duplication of cell styles does not limit their functionality, it is cumbersome for any user trying to apply them. The *Merge styles…* feature allows you to resolve this duplication either manually or automatically.

![Dialog box Merge styles](image)

**Figure:** Dialog box Merge styles

You can select duplicate cell styles from the *From*-list to be merged with a style specified in the *To*-list. In the *Range* block, you can specify whether to apply these changes to the active workbook, the active worksheet, or a marked selection. Deleting styles is not recommended for any range selection other than the active workbook.

Alternatively you can remove all duplicate styles via the *Auto merge all* button, which also deletes obsolete styles upon completion.

---

**Show chart sheets**

Chart-me XLS automatically hides chart control sheets on chart insertion. This function controls visibility of chart control sheets.

**Sharepoint compatibility**

Workbooks created with Chart-me XLS can be displayed and edited in SharePoint and MS-Office 365. For this purpose this function is needed as preparation. Please apply this function only to a copy of your original workbook, because any further editing is very limited.
Customize control menu

Create menu table

The Customize control menu items provide you with the option of defining special menus in your Excel workbooks.

Highlight a cell range on the worksheet tab, which will later be hidden to the user. Select from the Chart-me menu More > Customize control menu > Create menu table to create a definition table, which can then be used to customize the menu in each worksheet. The definition table requires 5 columns and a dynamic number of rows. A blank menu table consists of 13 rows and an additional row for every menu item. Chart-me XLS creates this basic definition table for you with the Create menu table feature.

Add menu items

You can now create your own menu entries by adding custom rows into an existing menu table.

The image below shows three configuration cells.

Figure: Example for custom configuration cells

Highlight the cells to be added into your menu table. Empty rows may be selected without affecting the menu table, as they are automatically filtered from the menu table.

Figure: Highlight configuration values
Now select from the Chart-me menu More > Customize control menu > Add menu items. The blue configuration cells are added as menu items to the menu table.

![Chart-me menu]  

**Figure:** Menu table with three new menu items

The new menu items will be displayed in the control panel (Control menu).

![Control panel]  

**Figure:** Control panel with new menu items

If the menu entries are deactivated, make sure the cell format of the input cells are open for editing. Right-click the configuration cells and click on Format Cells…, select the Protection tab and uncheck the Locked checkbox.
Once the configuration cells are unlocked, the control panel entry range will be open for editing.

In order to distribute the menu entries across multiple menu tabs, specify different register names in the *Menu control* cell range. A register name needs to be listed to the left of the first menu entry of that register.

**Figure: Unlock cell formatting**

**Figure: Entry of register names in the definition table**
The following list details possible menu entries for the menu control table:

**Mnu_Labels_VPos**
Position of menu item label measured in points, starting from the left edge of the dialog window

**Mnu_Labels_Width**
Width of menu item label measured in points

**Mnu_Text_Box_VPos**
Position of menu item text range measured in points, starting from the left edge of the dialog window

**Mnu_Text_Box_Width**
Width of menu item text range measured in points

**Mnu_Style_DataInput**
Cell style for configuration cell, to be displayed in menu control

**Mnu_Style_Labelling**
Cell style for labeling (alternative 1)

**Mnu_Style_Property**
Cell style for labeling (alternative 2)

The Mnu_Style_* cell styles (*Mnu_Style_DataInput, Mnu_Style_Labelling und Mnu_Style_Property*) are essential for the More > Customize control menu > Add menu items function. New entries to the control menu will be added only if the data input cell carries the cell style Mnu_Style_DataInput, and the data cell to its left is defined as either cell style Mnu_Style_Labelling or Mnu_Style_Property.

Explanation of the menu control table columns:

**Register**
The name of the control menu tab, listed only once next to the first entry of the tab.

**Text**
Label of entry item to be displayed in the control menu.

**Cell reference**
Cell reference of the data value to be displayed in control menu. Cell references are listed in A1-labelling convention or Excel defined names and are references within the same worksheet (not the entire workbook).

**Control**
Carries either the value Mnu_Edit to denote a data entry item or Mnu_Separator for a blank line.
Option

May denote a validation list, if the data entry cell offers a dropdown menu, which was previously defined through the Excel Data Validation feature.

Example:

![Configuration cell with data validation dropdown list](image)

**Figure:** Configuration cell with data validation dropdown list

The data validation lists are prefixed with a character string. Either:

- **VALIDATION_LIST_MATCHREQUIRED**
  To denote that the entry value must correspond to a value on the validation list, or

- **VALIDATION_LIST_OPTIONAL**
  To denote that the entry value may be chosen from, but doesn’t have to correspond to a value on the validation list.

**Recalc**

![Recalc function](image)

The *Recalc* function can be used to either recalculate the entire workbook or the current worksheet. Unlike the Excel Recalc function, *Chart-me XLS* sets the status of all workbook or worksheet cells to “not updated” and subsequently initiates a full recalculation.

This feature may prove useful when Excel fails to initiate a full recalculation when complex charts have been created.

**Copy (for PowerPoint)**

The *Copy* function places the entire page layout on the clipboard.
Figure: Page layout copy cell range

You can paste the copied range into PowerPoint or Word with the File > Paste Special > Paste link feature. The copied chart can then be updated as needed.

Figure: Paste Special

Set the linked object size in PowerPoint to 100% in order to achieve the same image size as in Excel.
Figure: Format linked object in PowerPoint

Figure: Set object size to 100%
Figure: Set horizontal and vertical linked object position to 0

Options...

Figure: Options dialog box

The options dialog box allows you to modify path, language, and style settings and activate the license for your copy of Chart-me XLS.

The Master Template Folder contains the Master Templates, which are applied when inserting new chart templates.

The Buffer Folder serves as temporary storage space during the processing and rendering of Chart-me XLS objects (please refer to Background Information for further details).

NOTE: All content of the buffer folder will be deleted when installing a new version of Chart-me XLS! Never save any of your work in this folder!

The Stylesheet file is both the directory path and file name for the Chart-me style sheet. During the standard installation, the style sheet file is saved in the user profile. The style sheet can also be saved to a central directory to provide easy access for working groups.
– Change Language

*Chart-me XLS* supports both German *(De)* and English *(En)* language settings. The language setting affects the *Chart-me XLS* user interface as well as language display on the page layout and chart template worksheets.

![Menu Band in German](image1)

**Figure: Chart-me menu band in German**

![Menu Band in English](image2)

**Figure: Chart-me menu band in English**

– Apply Style

*Style* denotes a collection of predefined settings for colors, line thickness, category widths, etc., which are applied when inserting a new chart. The basic installation package of *Chart-me XLS* includes the styles *Default* and *IBCS*. You can open (and modify) styles by clicking on „...“ next to the Style dropdown selection box.

![IBCS Style Sheet](image3)

**Figure: IBCS style sheet**

The style sheet file contains a single worksheet with all settings relevant for chart formatting. The name of the worksheet reflects the style option available in the *Options* dialog box. You can define...
new styles by duplicating one of the existing sheets and modifying various settings according to your needs.

The style sheet file is located in the current users profile path:
C:\Users\[user name]\AppData\Roaming\Hi-CHART\chartme\Chart-me_stylesheets.xlsx
This is the directory path the way you would see it in Windows Vista und Windows 7.

NOTE: Only the blue shaded cells of the style sheet may be edited, i.e. overwritten. In order for the style sheet to be interpreted correctly, the structure of the file may not be change, i.e., you cannot add or delete rows or columns or move cell blocks to other positions.

– Updates > Check automatically for product updates
When the box is checked, a notification will pop up on screen whenever an updated product version becomes available.

– Max. buffer size (MB)
In order to prevent the buffer directory from overflowing, the Max. Buffer size setting automatically deletes files in the template buffer file when the set buffer size is reached. Least recently used and saved data files are eliminated first. A data value of 0 in the buffer size entry value deactivates the deletion of any files in the buffer directory. Please also refer to Background Information > File buffering.

– Activate License
Upon initial installation of Chart-me XLS on your personal computer, you obtain a demo license for testing purposes limited to a 30 day period. This testing period begins when you launch MS Excel with the Chart-me XLS add-in installed and activate the demo version. The Chart-me XLS option on the menu bar will read Chart-me XLS DEMO. The Chart-me ribbon band will then read Chart-me DEMO (nn days remaining).

Figure: Activate the 30-day demo license

Figure: Chart-me Menu ribbon showing the remaining days left for the demo license

During the demo period, Chart-me XLS will occasionally remind you about the status and remaining days of the demo license and your option to purchase this useful and very reasonably priced software app. We look forward to welcoming you as a paying member to the Chart-me family.
Once your demo period has expired, or if you haven’t activated the demo period at all, the Chart-me menu tab will display an “expired” status:

Figure: Deactivated Chart-me menu tab

Use the Activate button in the Options dialog box to activate Chart-me XLS. Since the activation process must be executed with the administrator user, the following User Account Control dialog window will pop up under Windows Vista, which you need to confirm with Yes.

Figure: User Account Control
You need to enter your name and the 3 parts of your license code. Once the license code has been accepted, close and re-launch Excel.

Once the demo period has expired, the *Demo* button will no longer be displayed.

**Draft functions**

**– Link**

**Link labels**

The *Link labels* function allows you to customize the data point labels in the charts you create.

In the following example, the labels of the column data points refer to the scaled values represented in the chart, rather than the actual base values.
Excel 2013 provides functionality allowing you to link the labeling of the data points to a separate cell range. In older versions of Excel, this is also possible, however only by individually relinking every single label of a data point, which can prove to be very time consuming and tedious.

The Chart-me XLS Link labels function provides a quick and easy way to speed up that process. Select the data labels series in the chart and navigate to the Link labels function.

In the Link data labels to cells dialog box, select the appropriate cell range which holds the correct labeling for your data series.
The chart displays the data labels of the cell range, to which you established the link.
Relink labels

The *Relink labels* function allows you to update existing data linkages, which you created in the previous steps. This may be useful when the column setup of the data entry range has changed.

**STOP!** Do not add rows or columns to any *Chart-me XLS configuration page*! You may only add rows and columns to the charts you created without the *Chart-me XLS* application.

The new column value is automatically displayed in the chart. Fix the labeling by clicking on Draft > Link > Relink labels.

Starting with Excel 2013, the *Chart-me XLS Link labels* feature is also available in standard Excel and handles column inserts automatically. For any chart templates created prior to Excel 2013 and which are now opened in Excel 2013, the *Relink labels* feature will update the linking process to now use the standard Excel 2013 version.
The *Size* feature helps you to create pixel perfect row and column grids. When using this function, *Chart-me XLS* reserves the first row and first column of a worksheet to hold the row and column specifications for the chart.

### Size Pixel

<table>
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<th>A</th>
<th>B</th>
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</table>

**Figure:** Size function using pixel

You can activate the *Size Pixel* feature by selecting it from the *Draft > Size* menu or entering "x" into cell A1 of the worksheet. Cell A1 then displays the current dpi setting of your computer display.

You can now measure any column width or row height by simply typing "x" into the first row or first column respectively.

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**Figure:** Measuring width of column B by typing in "x"

<table>
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<th>B</th>
<th>C</th>
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</table>

**Figure:** Column width of column B measured in pixel
Figure: Measuring height of row 3 by typing in „x“

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Figure: Row height of row 3 in pixel

Entering a number in the first row or column of this worksheet will automatically resize that column or row to the number of pixels specified.

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</tbody>
</table>

Figure: Modify row height and column width by specifying pixel values in the first column and row of the worksheet

**Size mm**

Analogous to Size Pixel, measurement unit in millimeter.

**Size inch**

Analogous to Size Pixel, measurement unit in inches.

**End Size**

Turn off the sizing mode by clicking Draft > Size > End Size or deleting the entry in cell A1.
Help menu

Documentation
Opens this document. A PDF viewer is required on your computer.

Goto support-page
Opens the online Chart-me XLS support page, where you will find videos, FAQs, and other frequently updated support materials.

About Chart-me XLS …
The About Chart-me XLS window provides information on the registration status of your copy of Chart-me XLS, currently installed version, and a link to the HI-CHART product website.

Click on Check for software update to see if new Chart-me XLS updates are available.

Figure: Chart-me XLS Info
Background information

– Master template charts

When creating a chart via the Chart-me XLS add-in user interface, Chart-me XLS inserts and configures a template chart from the chart master templates (a.k.a. Diagramm-Mastertemplate – DMT). The chart worksheet contains the chart object and its cell ranges for data entry, configuration and control settings. The worksheets are named according to the chart's position on the layout page, e.g., Chart1, Chart2...

– File buffering

The rendering of a chart template from the chart master templates is resource intensive. In order to speed up the process, already used chart templates are cached in the TemplateBuffer directory.

If a new chart template of the same chart type and settings (same font size, chart size in pixels, and style sheet) is inserted, the applicable template is pulled from the cache rather than drawn from the chart master template files.

If, however, for any reason, you want to ensure that a chart template is created from the chart master template even if a cached version may be available, then the Rebuild chart option needs to be checked in the Insert chart dialogue box.

Figure: Option Rebuild chart
X-resolution in column and bar charts

When creating standard column and bar charts with MS Excel, the program is limited to a uniform width display across all columns and bars within a chart. If you want to graph different types of periods within a time series, there must be a way to differentiate graphically between, say, monthly and annual values. Below is a typical example of a differentiated display of various data types.

Figure: Time series with varying category widths (year, quarter, month, day)

In order to be able to chart any type of Excel range diagrams, Chart-me XLS utilizes the approach of rendering many, many columns (about 1000) across the X-Axis. These columns are wafer-thin and must be rendered exactly where they are needed. Bar charts utilize point diagrams with connecting lines drawn between the appropriate points. Data series with 1000 data points require data configuration ranges with an analogous number of data entry cells. With this many data points, it becomes apparent that the data files will grow very quickly.

The Chart-me XLS Shrink… process reduces the number of data points to the actual number utilized in the chart. So, if a chart uses only 400 pixels, shrinking the chart will reduce the number of data points to just these 400 pixels used. If the x-resolution was set to 2, Chart-me XLS will reduce the data points further to the corresponding 200 pixels. The x-resolution is an input parameter on the Shrink… dialog box.
**Automation**

The automation module supports the creation of multipage reports that are published recurring with changed data. The aim is that the recurring effort of data update and output is minimized.

The following output media are supported:

- PDF
- Vector image EMF

Multi-page PDF files can already represent an entire report.

Vector images are suitable for integration into other Office documents in Word, PowerPoint or Excel in itself.

**Projects**

To create a multi-page report, a project can be defined.

The active project is displayed in the Chart-me XLS Excel ribbon menu.

With *Projects – New* a new project can be added.
With Projects – Edit existing projects are listed and can be edited.

A project consists of a sub folder in the Chart-me XLS project root folder.

The project root folder can be set in Chart-me XLS - Options.
Default is `C:\Users\[Username]\AppData\Roaming\HI-CHART\chartme\Chart-me Projects`.

The project folder contains three sub folders:
- Data – for external data files
- Objects – for Chart-me XLS Excel-workbooks as the report content
- Output – here PDF and image files are automatically saved.

In addition, the file `Hi-Config_Engine.xlsb` in the project directory. This file contains the definition of the individual project pages and images.
The section Data supports the outsourcing of data into an external Excel workbook. In a multi-page report, which consists of several Excel figure files, you would have normally to open every single file, update the data and then output to the target format. With these functions, the data inputs of several figure workbooks can be outsourced into one (or several) external Excel workbooks with only data. Thus, to update the report, it needs only to replace or update, the (small) data file.

Add external file
First, you add an Excel data workbook file to the project. It is recommended to store them in the project folder under Data. But there are also other locations possible. It may be a blank workbook or a workbook that already contains data.

This workbook is first added to a project with Data – Add External File. Now the data file can be used to outsource data from figure workbooks.

Add link to external file
Open an existing Excel file, which is intended to a be part of your project. It is recommended that this is previously stored in the project directory in the Objects folder. Select an empty cell in this file and choose the Chart-me menu Data - Add link to external file. In the following dialog the data workbook is
displayed, which was added to the project in the previous step. If this is selected in the left list, all worksheets of this file are displayed in the right list.

With OK a 2 x 2 sized cell range is inserted, by means of which the external data shortcut created in the next step can be controlled.
Insert and link range

Now different cell ranges can be outsourced from the report workbook into the data workbook. Outsourced is here that the respective range will be copied from the report workbook in the data workbook and the cell range in the report workbook then gets an external reference to the copied range in the data workbook. File name and sheet name of the external link can be changed if necessary in the two in the previous step created cells. From now on the data workbook must always be opened together with the report workbook so that correct pictures are displayed. As long as Chartme XLS is running, the data workbook is opened automatically whenever a report workbook is opened.

Now the data can be updated or replaced in the (small) data workbook, and the chart will be automatically updated on next usage.

Proceed as follows:

Select the data input cell range in the report workbook to be outsourced in the external data file. Then click Data – Insert and link range. In the following dialog select the file name and sheet name of the related data file.

After clicking OK, the selected range of cells appears highlighted.
You can (e.g., with CTRL-F6) change to already open data file and see there that the selected data range has been added there. Here database formulas or any other calculations can be inserted. The data file can also be exported from another system with modified data. Once the report workbook is opened, the updated data from the data file will be displayed.
Export
With Export Excel ranges can be exported to PDF or EMF vector images, linked with a PowerPoint presentation and a whole project can be processed. In this chapter you learn how to define a project.

Vector graphic (EMF)
After selecting the function Export - Vector graphic (EMF), the following dialog appears:

As described in the dialog, the selected Excel range can be exported once with "Yes". The image file gets the same name as the source Excel file with the extension "EMF".

PDF
After selecting the function Export - PDF, the following dialog appears:

As described in the dialog, the selected Excel range can be exported once with "Yes". The PDF file gets the same name as the source Excel file with the extension "PDF".

If you select "No" for repeated export (no matter if EMF or PDF file) is no file will be exported in the moment, but it is recorded in the project that this area at the next Project Export (with Start project output) will be exported.
output, see below) is exported. This action will be visible when the project is opened with Projects - Edit - Edit. You can see that the range to be exported appears as a new row in the project list.

The exported files are stored in the project folder in the directory Output. If different ranges are stored as EMF images in this way, then the same number of EMF files will be created. If several ranges in PDF format are stored, then a PDF file that contains multiple pages will be created.

**PowerPoint**

*Export - PowerPoint* links the current Excel selection to PowerPoint. For this purpose, PowerPoint must be open. The link is created in the current PowerPoint slide and automatically adjusted to 100% size. The PowerPoint links can be updated manually. When you open PowerPoint, a message appears asking if the existing links are to be updated. After linking to PowerPoint, it is advisable not to move or rename the Excel source files.

**Start project output**

The project list shown above includes all actions that are executed on project output. The data files are always placed at the beginning of the list because they have to be open during processing. The list entries can be changed by moving rows in the order or rows can be deleted as well. Columns should be neither deleted nor moved.

The output can be started via Chart-me menu *Export – Start project output* or in the project file with the button *Start*. 